

**ABSTRACT**

The invention concerns a method for preparing 4-hydroxyisoleucine diastereoisomers and enantiomers and derivatives thereof of general formula (I), characterized in that it consists in reducing an isoxazole derivative of formula (II) in conditions directly resulting in the derivatives of formula (I), or in obtaining at least a lactone of structure (III) in racemic form(s), or a enantiomerically enriched mixture, followed by opening, in basic conditions, in an aprotic or protic solvent, the desired lactone(s) and, optionally, separating the desired form. The invention is useful for preparing in particular (2S, 3R, 4S)-4-hydroxyisoleucine